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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,472	03/11/2004	Charles Herbert Morris	4616-68081	8371

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EXAMINER	
MILLS, DANIEL J	

ART UNIT	PAPER NUMBER
3679	

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/799,472	MORRIS, CHARLES HERBERT	
	Examiner	Art Unit	
	Daniel J. Mills	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22 and 25-27* is/are pending in the application.

4a) Of the above claim(s) *1-17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-22 and 25-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 1-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/5/2005.

Specification

Objection to the abstract withdrawn in view of amendment dated 12/5/2005

Claim Objections

Claim objections withdrawn in view of amendment dated 12/5/2005

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18-22, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris (US 2002/0017062) in view of Daws (US 4,131,378).

Regarding claim 18, Morris discloses a hinge for connecting one terminating end of a handrail to a pivoting gate arm made of tubing, the hinge comprising in combination, two substantially identical connectors (4, 6), each connector comprising, a

clevis (41, 61) having two opposed clevis fingers, and a clevis web (48, 68) spanning the base of the clevis fingers, the clevis fingers defining a clevis gap, and a stub (42, 62) for insertion into tubing so as to attach the relevant connector to the tubing, two pins. a generally-rectangular parallelepiped link (5 is a generally-rectangular parallelepiped in as much as applicant's invention is), interposed between the clevis fingers of each clevis and pivotally attached to each clevis by one of the two pins within aligned holes (51, 52) in the clevis and the link, wherein the combined pivoting of each of the connectors relative to the link is such that, when the hinge is installed, a gate arm may pivot relative to a handrail through 180°. Morris fails to disclose that the holes and pins are configured so as to prevent relative longitudinal movement as between each of the connectors and the link.

Daws teaches the use of a generally-rectangular parallelepiped link with a spring loaded hole and pin arrangement (see Figure 2) for the purpose of biasing the pins toward each other to prevent relative axial movement. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the arrangement of Morris to include a generally-rectangular parallelepiped link with a spring loaded hole and pin for the purpose of biasing the pins toward each other as taught by Daws, to prevent relative axial movement.

Regarding claim 19, Morris in view of Daws results in a hinge wherein, when the hinge is installed and the gate arm to which it is installed is in a closed position, a portion of the clevis web of each connector abuts the adjoining end of the link (shown in figure 2) so as to impede pivotal movement of the gate arm in the direction opposite an

opening direction, the abutting sections of each of the connectors and the link being surfaces extending substantially perpendicular to the longitudinal axis of the handrail and gate arm.

Regarding claim 20, Morris in view of Daws results in a hinge wherein, when the hinge is installed and the gate arm to which it is installed is in a closed position, the clevis fingers of one connector abut the clevis fingers of the other connector (shown in figure 1) so as to impede pivotal movement of the gate arm in the direction opposite an opening direction, the abutting sections of each of the connectors and the link being surfaces extending substantially perpendicular to the longitudinal axis of the handrail and gate arm.

Regarding claim 21, Morris in view of Daws results in a hinge wherein each connector abuts the link when each connector has pivoted roughly 90° from a closed position relative to the link (shown in figure 4).

Regarding claim 22, Morris in view of Daws results in a hinge wherein, when the hinge is installed, a portion of each connector abuts the link when the gate arm to which the hinge is attached is pivoted to a fully open position roughly 180° from a closed position, such that the gate arm is substantially parallel to the adjoining handrail (shown in figure 3A), so as to impede pivotal movement of the gate arm beyond roughly 180° between the closed position and the fully open position.

Regarding claim 25, Morris in view of Daws results in a hinge wherein the handrail and gate arm are round tubing and each stub is substantially cylindrical and

has an external diameter the same as, or slightly smaller than, the internal diameter of the tubing.

Regarding claim 26, Morris in view of Daws results in a hinge wherein each stub is hollow and is provided with circumferentially-spaced longitudinally-extending slits (11) to permit the stub to be slightly compressed to facilitate insertion into the tubing.

Regarding claim 27, Morris in view of Daws results in a hinge wherein each stub has one or more retainer wedges (the action of 20 on 10 creates a slightly inclined surface on the outer surface of each of the quadrants of the stub), each retainer wedge having a relatively-long gently-inclined top surface (outer circumference of the stub) that facilitates insertion of the stub into a tubing and a short end surface (the end of the stub) that forms a sharp corner with the gently-inclined top surface, which sharp corner engages the inner wall of the tubing so as to resist removal of the stub.

Claims 18-22, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris (US 2002/0017062) in view of Rosane (US 5,217,315).

Regarding claim 18, Morris discloses a hinge for connecting one terminating end of a handrail to a pivoting gate arm made of tubing, the hinge comprising in combination, two substantially identical connectors (4, 6), each connector comprising, a clevis (41, 61) having two opposed clevis fingers, and a clevis web (48, 68) spanning the base of the clevis fingers, the clevis fingers defining a clevis gap, and a stub (42, 62) for insertion into tubing so as to attach the relevant connector to the tubing, two pins. a generally-rectangular parallelepiped link (5 is a generally-rectangular parallelepiped in as much as applicant's invention is), interposed between the clevis fingers of each

clevis and pivotally attached to each clevis by one of the two pins within aligned holes (51, 52) in the clevis and the link, wherein the combined pivoting of each of the connectors relative to the link is such that, when the hinge is installed, a gate arm may pivot relative to a handrail through 180°. Morris fails to disclose a hinge wherein the holes and pins are configured in the clevis and the generally-rectangular parallelepiped so as to prevent relative longitudinal movement as between each of the connectors and the link.

Rosane teaches the use of a hinge wherein holes and pins are configured in the clevis and the generally-rectangular parallelepiped link so as to prevent relative longitudinal movement as between each of the connectors and the link for the purpose of added structural rigidity.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the arrangement of Morris to include a hinge wherein holes and pins are configured in the clevis and the generally-rectangular parallelepiped link so as to prevent relative longitudinal movement as between each of the connectors and the link as taught by Rosane, for the purpose of added structural rigidity.

Regarding claim 19, Morris in view of Rosane results in a hinge wherein, when the hinge is installed and the gate arm to which it is installed is in a closed position, a portion of the clevis web of each connector abuts the adjoining end of the link (shown in figure 2) so as to impede pivotal movement of the gate arm in the direction opposite an opening direction, the abutting sections of each of the connectors and the link being

surfaces extending substantially perpendicular to the longitudinal axis of the handrail and gate arm.

Regarding claim 20, Morris in view of Rosane results in a hinge wherein, when the hinge is installed and the gate arm to which it is installed is in a closed position, the clevis fingers of one connector abut the clevis fingers of the other connector (shown in figure 1) so as to impede pivotal movement of the gate arm in the direction opposite an opening direction, the abutting sections of each of the connectors and the link being surfaces extending substantially perpendicular to the longitudinal axis of the handrail and gate arm.

Regarding claim 21, Morris in view of Rosane results in a hinge wherein each connector abuts the link when each connector has pivoted roughly 90° from a closed position relative to the link (shown in figure 4).

Regarding claim 22, Morris in view of Rosane results in a hinge wherein, when the hinge is installed, a portion of each connector abuts the link when the gate arm to which the hinge is attached is pivoted to a fully open position roughly 180° from a closed position, such that the gate arm is substantially parallel to the adjoining handrail (shown in figure 3A), so as to impede pivotal movement of the gate arm beyond roughly 180° between the closed position and the fully open position.

Regarding claim 25, Morris in view of Rosane results in a hinge wherein the handrail and gate arm are round tubing and each stub is substantially cylindrical and has an external diameter the same as, or slightly smaller than, the internal diameter of the tubing.

Regarding claim 26, Morris in view of Rosane results in a hinge wherein each stub is hollow and is provided with circumferentially-spaced longitudinally-extending slits (11) to permit the stub to be slightly compressed to facilitate insertion into the tubing.

Regarding claim 27, Morris in view of Rosane results in a hinge wherein each stub has one or more retainer wedges (the action of 20 on 10 creates a slightly inclined surface on the outer surface of each of the quadrants of the stub), each retainer wedge having a relatively-long gently-inclined top surface (outer circumference of the stub) that facilitates insertion of the stub into a tubing and a short end surface (the end of the stub) that forms a sharp corner with the gently-inclined top surface, which sharp corner engages the inner wall of the tubing so as to resist removal of the stub.

Double Patenting

The double patenting rejection of Claim 18 is withdrawn in view of the submitted terminal disclaimer.

Response to Arguments

Applicant's arguments filed 12/5/2005 have been fully considered but they are not persuasive.

Applicant asserts Morris '062 does not disclose the use of a generally-rectangular parallelepiped. Examiner disagrees with applicant, and notes that the limitation "generally" is very broad and synonymous with approximately, roughly, etc. Examiner is familiar with rectangular parallelepiped solids and based on applicant's

disclosure, believes applicant could have only meant to claim a link which is a generally (rectangular parallelepiped). Further, using applicant's definition of parallelepiped, it is clear that no rounded corners are claimed, and that applicant's item 5 is not in fact a parallelepiped. It appears that rounded corner surfaces are required in by applicant's invention. By applicant's definition, there appears to be no original disclosure of a parallelepiped. According to the American Heritage Dictionary 4th Ed., a parallelepiped is "A solid with six faces, each a parallelogram and each being parallel to the opposite face". According to this definition, Morris '062 discloses a parallelepiped in which pairs of six faces are parallel parallelograms: the front and back faces, 53/54, and 55/56.

Applicant asserts that the ends of the clevis fingers do not impede the movement of the gate arm. However, it clear from the disclosure of Morris '062, that both ends do abut and would impart a force opposing the movement of the hinge in a direction opposite the opening direction (see Figure 1).

Applicant argues that Morris '062 does not disclose substantially identical connectors. However, "substantially" is a broad limitation, as set forth in the claims, Morris '062 does meet this recitation. Applicant does not require that the connectors be "identical", and so if Morris '062 discloses connectors which clearly are nearly identical, the limitation "substantially identical" is also met.

Conclusion

Applicant's amendment to claim 18 (lines 5, 11, and 13-16), claim 19 (lines 4-6), claim 20 (lines 5 and 6). necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Griffenberg (US 1,036,222), Rankin (US 5,178,583), LeMole (US 6,353,969), and Wang (US 6,371,873) are cited for pertaining to hinges.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Mills whose telephone number is 571-272-8115. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJM
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2/16/2006

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